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CANADA

TUNGSTEN

MINING CORPORATION LIMITED



ANNUAL
REPORT

F O R T H E Y E A R E N D E D D E C E M B E R 3 1 s t .

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CANADA TUNGSTEN MINING CORPORATION LIMITED

TUNGSTEN

Few people, apart from scientists and those who work with tungsten, know its properties and uses.

The principal minerals of tungsten are Wolframite and Scheelite. Wolframite is black and is the most common. It is composed of tungstate of iron and manganese containing 76.4% tungsten trioxide. Scheelite is a light coloured mineral and is not so common. It is composed of calcium tungstate containing 80.6% tungsten trioxide.

Canada Tungsten Mining Corporation Limited produces a high-quality, low impurity, Scheelite concentrate.

The term 'tungsten' is derived from the Swedish term meaning heavy stone. Wolframite comes from the German word Wolferam and Scheelite was named after a Swedish Chemist, Carl Scheele.

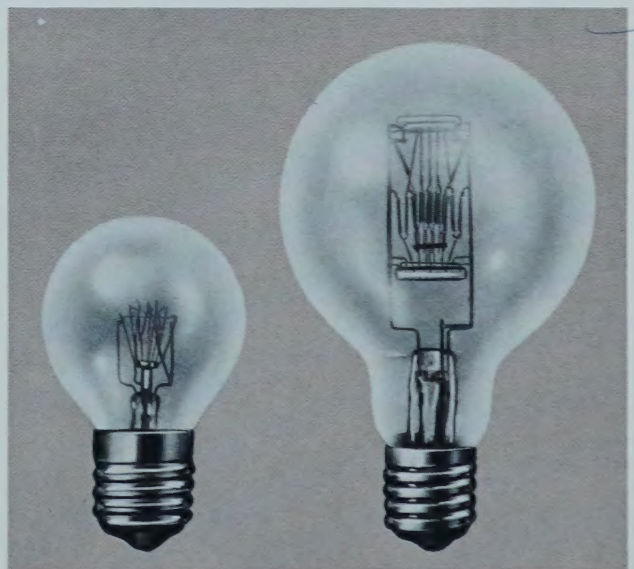
Carl Scheele in 1781 was the first to isolate and experiment with tungstic acid but it was not until the beginning of the 19th century that the metal gained its significant commercial use in tungsten high-speed steels. Shortly after this, the process for making tungsten filament wire was developed for use in electric lamps. Just prior to the First World War, the Germans recognized its potential in the manufacture of armour piercing shells. This was followed by the development of tungsten carbide used to replace diamonds in cutting tools. Tungsten carbide improves the performance of cutting edges of rock drills and more recently is being used in the manufacture of tire studs to ensure safe driving under winter conditions.

Tungsten ore, through chemical processes, is reduced to metal powder of 99.9% purity. The powder is pressed into bars and sintered in a hydrogen furnace. The bars are then rolled, forged and drawn into rod and wire of various sizes, depending on whether it will be used as an electric light filament or in the manufacture of electric contact points. If the metal is used in the process of tungsten carbide, the powder

is pressed into forms as required. When used in the manufacture of high-speed steel, the tungsten concentrate is added directly to the melt in the furnace.

Tungsten has been integrated into industrial and military uses in many other ways. Its extremely hard qualities and high melting point (6,170° fahrenheit) makes it invaluable in the fields of aeronautics, nuclear power development, automotive, electricity, welding, die casting and tool-making. Research in other fields can be expected to open up new applications.

World production in 1964 according to the latest statistics available, is estimated at 66,000,000 pounds WO_3 of which 41,000,000 pounds came from China-Russia output. Your Company will produce 4,000,000 pounds annually at its present capacity, approximately one-sixth of the free world production. Therefore, your Company holds a very important position as a producer of tungsten in the world to-day.



Tungsten wire filaments as used in the more than 3 billion light bulbs produced by the lamp industry in 1965.

CANADA TUNGSTEN MINING CORPORATION LIMITED

DIRECTORS' REPORT TO THE SHAREHOLDERS

Your Directors submit herewith the Annual Report of your Company, together with your General Manager's Report and the Financial Statements, with the Auditors' Report thereon, as at December 31, 1965.

The metallurgical process having reached a certain degree of stability and even more importantly, the product having gained a thorough measure of consumer acceptance, it was decided with the approval of the Department of National Revenue, Taxation Division, Ottawa, to declare the start of production to be June 1, 1965. As a result, it then follows that the financial statements only reflect a profit and loss account for the period June 1 - December 31 with sales revenue for the first five months of the year being shown as a credit to pre-production expense. For the period June 1 - December 31, the net loss amounted to \$22,095, after providing for depreciation, loss on sale of equipment, amortization of debenture discount and write-off of pre-production expense amounting to \$611,709.

The results of your Company's 1965 operations show a substantial improvement over those of 1964. Many of the metallurgical problems, which had previously beset the operation, have been resolved. During the 1965 mining season, 127,000 tons of ore were mined, which required the removal of 200,000 tons of waste and overburden. The concentrator operation processed during the year 108,000 tons of ore averaging 2.53% WO_3 .

The installation of a circuit for the recovery of copper has been delayed pending delivery of equipment. It is expected that this circuit will be in operation in May.

Improvements to the townsite have been made including renovations to houses and staff quarters. An employees' recreation hall was built with financial assistance from the Department of Northern Affairs. This programme has resulted in improved living conditions in this isolated Northern Community.

Early in 1966, Mr. E. Hoddinott became your Company's Mine Manager replacing Mr.

R. Lambert, who became associated with the operation of Mastodon-Highland Bell Mines Limited.

Along with the increase in operational efficiency which has been effected during the year, your Company benefited from a substantial increase in the world price of tungsten. In March, 1965 (the date of the last Annual Report) the price on the world market was \$16.80 per Short Ton Unit (20 pounds of WO_3). By year-end, the price had risen to \$35.50.

The majority of the sales made by your Company during 1965 were delivered under contracts at prices established in 1964 prior to the resumption of operations, with the remaining amount being sold on the spot market at the prevailing world prices.

We are pleased to report that marketing arrangements with our principal customers have been most satisfactory during the year. The product that we have furnished them has largely been consumed in the manufacture of metallic tungsten and tungsten carbides, and both of these markets have benefited from the growth in technology that has occurred in the free world during the year. Our product has commanded priority due to its purity and particularly its low trace element content. The contractual arrangements that we have with our principal customers are considered most satisfactory for the long term growth and profitability of our operations.

We wish to express our appreciation to Mr. R. Ellerman, who assumed the duties of General Manager on May 1, 1965 and his staff for the efficient manner in which operations have been conducted and improved throughout the year.

On behalf of the Board,

March 25, 1966

F. E. HALL,
President.

BALANCE SHEET

ASSETS

CURRENT:

Cash	\$ 76,664
Accounts receivable	621,040
Inventory of concentrates — at the lower of cost or net realizable value	448,551
Inventory of ore in stockpile — at cost	312,547
Prepaid expenses	9,250
Total current assets	<u>1,468,052</u>

FIXED — at cost (Note 1):

Mining property	125,000
Buildings, plant and equipment	\$3,198,025
Less accumulated depreciation	<u>358,730</u>
Net fixed assets	<u>2,839,295</u>
Net fixed assets	<u>2,964,295</u>

OTHER:

Inventory of supplies — at cost	239,260
Development and preproduction expenses — at cost less amounts written off — Exhibit C	3,649,971
Unamortized debenture discount	618,000
Deferred charges	20,540
Incorporation expense	2,835
Total other assets	<u>\$4,530,606</u>
TOTAL	<u><u>\$8,962,953</u></u>

The accompanying notes are an int

AUDITORS' REPORT

To the Shareholders of Canada Tungsten Mining Corporation Limited:

We have examined the balance sheet of Canada Tungsten Mining Corporation and the statement of preproduction expenses for the year ended on that date and the statement of preproduction expenses. Our examination included a general review of the accounting procedures and necessary in the circumstances.

In our opinion the accompanying balance sheet and statements of development and preproduction expenses show the financial position of the company as at December 31, 1965 and the results of its operations for the year ended on that date in accordance with the generally accepted accounting principles applied on a basis consistent with that of the company.

Toronto, Ontario,
March 24, 1966.

as at December 31, 1965

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT:

Bank loan (Note 2)	\$ 672,000
Accounts payable and accrued charges	293,792
6% demand notes payable and accrued interest	1,116,557
Total current liabilities	<u>2,082,349</u>

LONG-TERM DEBT (Note 3):

6% debentures maturing December 31, 1971	2,680,000
Debenture interest accrued	643,200
Total long-term debt	<u>3,323,200</u>

SHAREHOLDERS' EQUITY:

Capital stock (Note 4):

Authorized:

5,000,000 shares of a par value of \$1 each

Issued and fully paid:

4,945,000 shares	4,945,000
Less discount	<u>1,365,501</u>

3,579,499

Deficit — Exhibit B	22,095
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Net shareholders' equity	<u>3,557,404</u>
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Approved by the Board:

F. E. HALL, Director.

J. B. REDPATH, Director.

TOTAL	<u><u>\$8,962,953</u></u>
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al part of the financial statements.

ration Limited as at December 31, 1965, the statement of development and
 it and loss and deficit for the period from June 1, 1965 to December 31, 1965.
 h tests of accounting records and other supporting evidence as we considered

ment and preproduction expenses, and profit and loss and deficit present fairly
 its operations for the year ended on that date, in accordance with generally
 ding year.

DELOITTE, PLENDER, HASKINS & SELLS,
 Chartered Accountants.

CANADA
TUNGSTEN
MINING CORPORATION LIMITED

EXHIBIT B

Statement of Profit and Loss and Deficit (Note 5)

For the Period from June 1, 1965 to December 31, 1965

OPERATING PROFIT BEFORE THE FOLLOWING EXPENSES		\$ 757,905
Interest on bank loan and notes payable	\$ 74,014	
Debenture interest	94,277	168,291
NET PROFIT BEFORE WRITE-OFFS		589,614
Depreciation (Note 1)	279,827	
Loss on sale of equipment	23,659	
Amortization of debenture discount	60,389	
Amortization of development and preproduction expenses (Note 1)	247,834	611,709
NET LOSS FOR THE PERIOD AND DEFICIT AT DECEMBER 31, 1965		\$ 22,095

EXHIBIT C

Statement of Development and Preproduction Expenses

For the Year Ended December 31, 1965

BALANCE, DECEMBER 31, 1964		\$4,020,898
Inventory of concentrates on hand, December 31, 1964	\$ 395,198	
Expenses — January 1, 1965 to May 31, 1965:		
Milling	423,665	
General and administrative	182,194	
Loss on sale of equipment	52,670	
Interest on bank loan and notes payable	51,172	
Debenture interest	66,523	
Amortization of debenture discount	42,611	
	1,214,033	
Less:		
Net proceeds from sale of concentrates from January 1, 1965 to May 31, 1965	928,715	
Inventory of concentrates on hand, May 31, 1965	408,411	
	1,337,126	
Net revenue		123,093
		3,897,805
Less amortization (Note 1)		247,834
BALANCE, DECEMBER 31, 1965		\$3,649,971

The accompanying notes are an integral part of the financial statements.

CANADA
TUNGSTEN
MINING CORPORATION LIMITED

Notes to the Financial Statements

December 31, 1965

1. Effective June 1, 1965, the mine fixed assets are being depreciated at 15% of cost per annum. Development and preproduction expenses are being amortized over the estimated life of the mine.
2. The bank loan is partly secured by accounts receivable and is guaranteed by the holders of the company's 6% debentures.
3. The 6% debentures, maturing December 31, 1971, are payable before maturity out of profits as provided in the debentures. Interest thereon is payable only out of profits as defined in the debentures.

As long as any of the 6% debentures are outstanding there are certain restrictions against the payment of dividends.

4. The following options to purchase shares of the unissued capital stock of the company were outstanding at December 31, 1965:
 - (a) An option granted in 1965 to an officer of the company, to purchase 15,000 shares at 75¢ a share, expiring March 25, 1968, exercisable at the maximum cumulative rate of 5,000 shares per year.
 - (b) An option granted in 1965 to an officer of the company, to purchase 30,000 shares at 88¢ a share, expiring March 25, 1968, exercisable at the maximum cumulative rate of 10,000 shares per year.
5. For income tax purposes, the three-year tax-exempt period commenced on June 1, 1965. For this reason, the statement of profit and loss covers the period June 1, 1965 to December 31, 1965 and the net revenue for the period from January 1, 1965 to May 31, 1965 has been credited to development and preproduction expenses.

CANADA TUNGSTEN MINING CORPORATION LIMITED

REPORT OF THE GENERAL MANAGER

The President and Directors,
Canada Tungsten Mining Corporation
Limited,
Suite 225 - 12 Richmond Street East,
TORONTO 1, Ontario.

Dear Sirs: —

The following is a report covering the 1965 operation of the Company's property in the Northwest Territories.

Apart from short periods of planned and emergency shutdowns, the concentrator operated continuously during the year. Mining of the orebody by the open-cut method was confined to the summer months.

Commencing on May 1, 1965, an extensive survey was made of the operation, and recommendations as to means of improving the metallurgy of the concentrator and administration and living conditions of the employees were presented to the Directors. Many of the recommendations have been implemented, although certain vital revisions to the concentrator must await delivery of equipment and experienced personnel for installation. All circuit changes are being made with minimum loss in normal production.

CONCENTRATOR

During the year the concentrator treated 107,651 tons of ore containing an average of 2.53% WO_3 . Both gravity and flotation concentrates were produced at grades satisfactory to meet market demands. Production of a low grade reject concentrate ceased as of July with the implementation of a satisfactory re-treatment system. Total recovery of scheelite improved during 1965 with revisions to the circuit and better operating techniques, but it is still below the original estimate. Every effort is being made to improve milling efficiencies.

MINING

During the mining season (which extended from June 1 to October 13, 1965) a total of 127,097 tons of ore were mined, having an average grade estimated at 2.33% WO_3 . A total of 200,088 tons of waste and overburden were removed from the pit area.

An exploration program is planned for 1966 in the immediate area of the orebody with the object of finding additional ores.

ORE RESERVES

The ore reserves at December 31, 1965, are calculated at 919,917 tons at a grade of 2.49% WO_3 , before allowance for dilution.

PERSONNEL

The competition for experienced staff and operating personnel in the North and West has been very keen in the mining industry. As a result, we have experienced a high turn-over of employees and the increasing necessity for training personnel.

We have been fortunate in holding together a reliable and experienced senior staff, and we have obtained the services of Mr. Ed. Hoddinott, replacing Mr. R. Lambert, as Manager early in 1966 and Mr. John Keily, an experienced open pit and underground mining engineer, who will join our staff in early 1966.

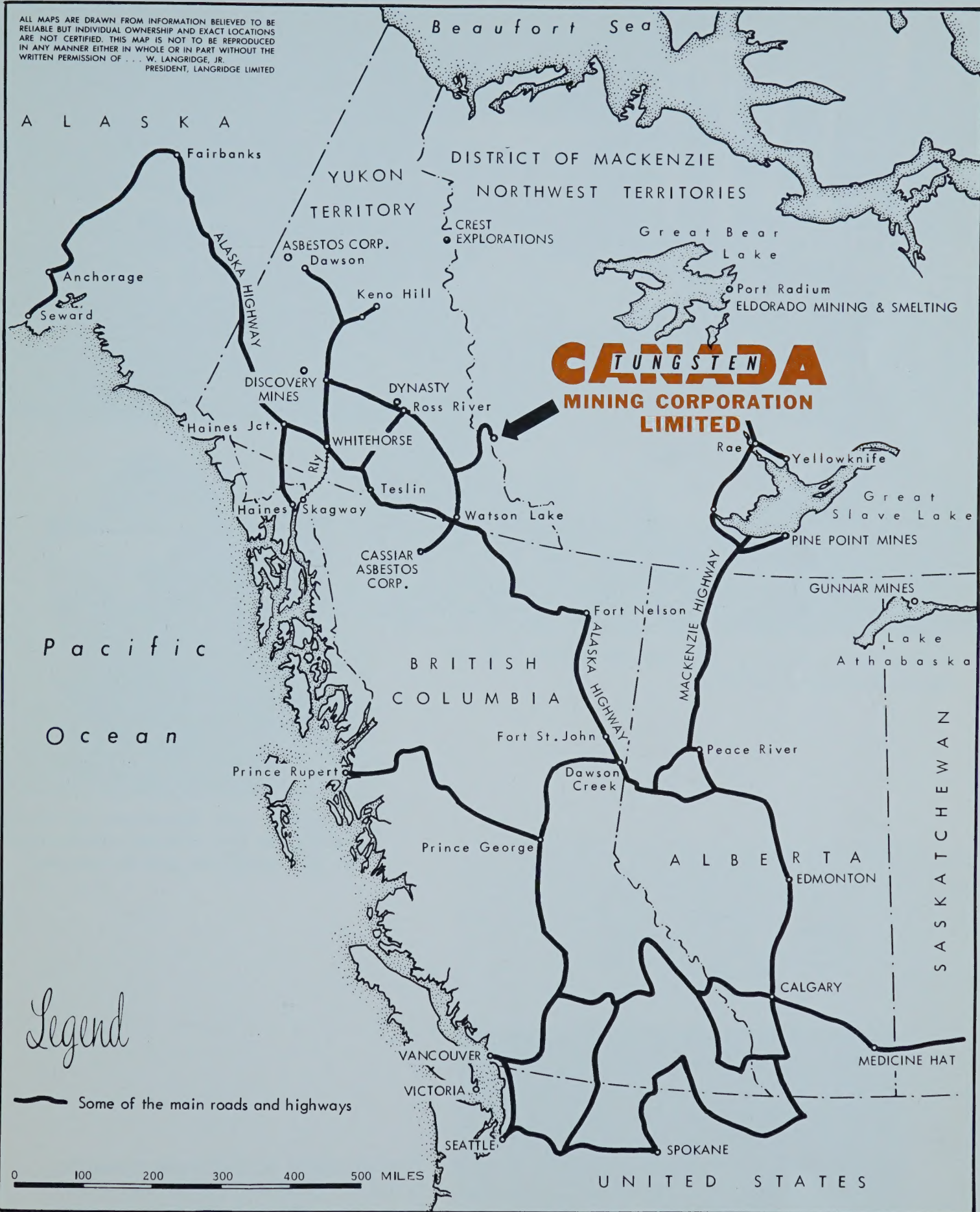
A two year contract was negotiated between the Company and the Mine-Mill Union.

Appreciation is expressed to Mr. R. F. Lambert, his staff and operating personnel for their services during the past year.

Respectfully submitted,

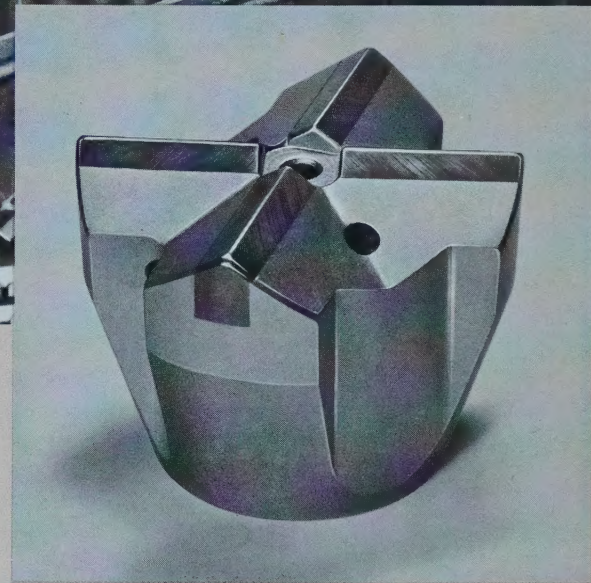
February 17, 1966
R. ELLERMAN,
General Manager.

ALL MAPS ARE DRAWN FROM INFORMATION BELIEVED TO BE RELIABLE BUT INDIVIDUAL OWNERSHIP AND EXACT LOCATIONS ARE NOT CERTIFIED. THIS MAP IS NOT TO BE REPRODUCED IN ANY MANNER EITHER IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF . . . W. LANGRIDGE, JR. PRESIDENT, LANGRIDGE LIMITED

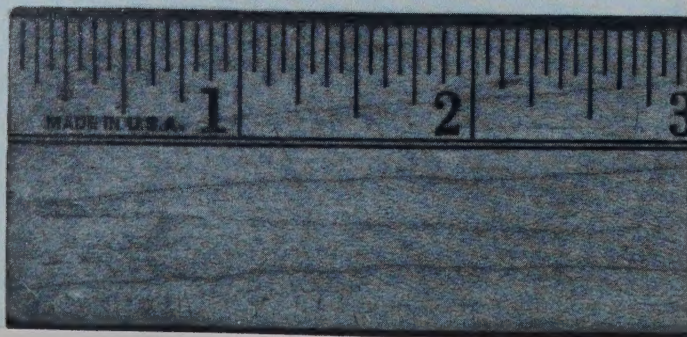
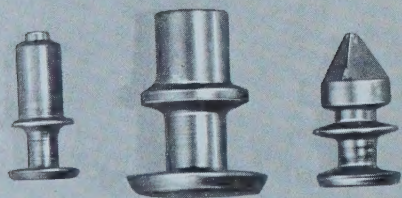




Packing various types of Coromant detachable drill bits tipped with tungsten carbide.



A shoulder type detachable bit clearly showing the four tungsten-carbide inserts that give longer life, greater economy.



Sintered-carbide tire studs make it possible to stop cars safely and quickly even on ice. From left to right studs shown are for passenger automobile, truck and racing car.

